

Comparisons of Job Characteristics

Focus Occupation: [Surveying and Mapping Technicians \(17-3031\)](#)

Associated Occupation: [Surveyors \(17-1022\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 96

Focus Occupation: Surveying and Mapping Technicians (17-3031)

Associated Occupation: Surveyors (17-1022)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Mathematics	9.2	20.6	15.0	<<	Extensive education and/or training may be required
Geography	3.9	16.1	14.5	<	Expanded education and/or training may be required
Computers and Electronics	8.4	15.3	13.4	<	Expanded education and/or training may be required
Engineering and Technology	5.7	15.1	10.3	<<	Extensive education and/or training may be required
Administration and Management	8.4	12.6	8.4	<<	Extensive education and/or training may be required
Design	5.2	12.6	11.8	0	Current knowledge level may be sufficient
Law and Government	5.9	12.0	7.3	<<	Extensive education and/or training may be required
Physics	4.3	9.2	4.8	<<	Extensive education and/or training may be required
Building and Construction	4.0	8.9	6.3	<<	Extensive education and/or training may be required
History and Archeology	2.6	6.8	3.8	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 94

Focus Occupation: Surveying and Mapping Technicians (17-3031)

Associated Occupation: Surveyors (17-1022)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
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Mathematics	6.2	14.1	11.6	<	A higher skill level may be required
Management of Personnel Resources	6.9	9.9	8.1	<	A higher skill level may be required
Equipment Selection	3.3	6.2	2.9	<<	Extensive development of skills in this area may be required
Programming	2.2	5.1	3.9	<	A higher skill level may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 93			
Focus Occupation: Surveying and Mapping Technicians (17-3031) Associated Occupation: Surveyors (17-1022)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Mathematical Reasoning	6.3	14.7	11.2	<<	Extensive improvement in abilities may be required
Number Facility	6.3	13.3	9.2	<<	Extensive improvement in abilities may be required
Flexibility of Closure	7.8	12.1	9.8	<	Some improvement in abilities may be required
Information Ordering	9.9	12.0	11.5	0	Current ability level may be sufficient
Far Vision	7.8	10.8	10.0	0	Current ability level may be sufficient
Visualization	7.5	10.8	9.2	<	Some improvement in abilities may be required
Speed of Closure	5.9	8.7	7.2	<	Some improvement in abilities may be required
Spatial Orientation	2.7	7.0	4.2	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 100
Focus Occupation: Surveying and Mapping Technicians (17-3031) Associated Occupation: Surveyors (17-1022)		
Work Activities	Exclusivity of Activity	
Analyze spatial data	87	
Analyze technical data, designs, or preliminary specifications	47	
Collect scientific or technical data	30	
Communicate technical information	4	
Conduct geological surveys	89	
Conduct land surveys	81	
Conduct plant location surveys	87	

Conduct topographical surveys	89
Draw maps or charts	69
Interpret aerial photographs	69
Maintain records, reports, or files	5
Obtain land survey data using surveying instruments	87
Operate land or site surveying instruments	80
Prepare safety reports	60
Read maps	42
Read technical drawings	7
Research property records	77
Use computer aided drafting or design software for design, drafting, modeling, or other engineering tasks	58
Use drafting or mechanical drawing techniques	50
Use oral or written communication techniques	1

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 93

Focus Occupation: Surveying and Mapping Technicians (17-3031)

Associated Occupation: Surveyors (17-1022)

Tools and Technologies	Exclusivity
Audio and visual equipment	4
Business function specific software	1
Computer data input devices	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Furniture	80
Garden tools	12
Geophysical and geotechnical instruments	23
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Land surveying instruments	19
Length and thickness and distance measuring instruments	2
Lenses and prisms	56
Measuring and layout tools	3
Meteorological instruments	16
Network applications software	1
Personal communication devices	2
Rock and strata measuring equipment	47
Sound generating and measuring equipment	19
Tool attachments and accessories	12

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.